

# R&S®HX002H1 150 W HF DIPOLE

1.5 MHz to 30 MHz

With integrated antenna tuning unit for stationary applications



The R&S®HX002H1 150 W HF dipole is suitable for setting up radio links over any distance. In particular, the optimized omnidirectional coverage ensures high transmission reliability over short and medium distances.

The R&S®HX002H1 can be directly connected to R&S®M3SR Series4100 HF transceivers by means of the R&S®GK4102 fiber-optic control cable.

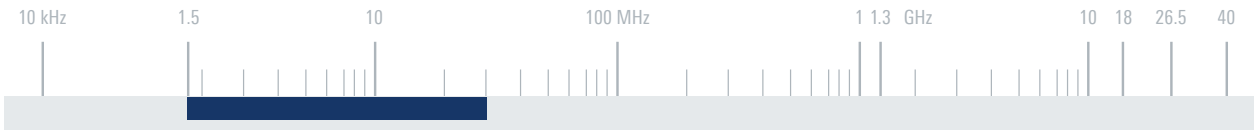
The antenna enables silent tuning over the entire frequency range from 1.5 MHz to 30 MHz. The integrated tuning unit must first learn the correct tuning settings for the antenna in a user-defined frequency range. The antenna then achieves tuning times of < 5 ms.

Special attention was paid to lightning protection. The integrated antenna tuning unit is protected against lightning strikes and was tested with 10 kV/10 kA discharges.

## Key facts

- ▶ Omnidirectional coverage with high-angle radiation (NVIS)
- ▶ No skip zone
- ▶ Integrated antenna tuning unit for support of fast frequency hopping in line with R&S®SECOM-H
- ▶ Silent tuning
- ▶ Compatible with R&S®M3SR Series4100 HF transceivers
- ▶ Setup close to neighboring antennas possible



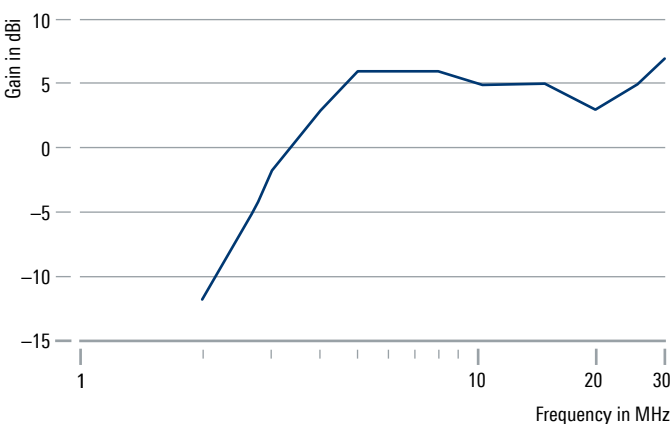


Specifications		
Frequency range		1.5 MHz to 30 MHz
Polarization	mainly vertical	1.5 MHz to 2 MHz
	mainly horizontal	2 MHz to 30 MHz
Input impedance		50 Ω
VSWR		< 1.5; typ. < 1.3
Maximum input power		100 W CW/150 W PEP
Tuning time	initial tuning	< 4 s; typ. 1.5 s
	repeated tuning	typ. < 0.2 s
	silent tuning	< 5 ms
Tuning power		30 W ± 1 dB
Connector		N female
Operating temperature range		-30°C to +55°C <sup>1)</sup>
Protection class		IP66
Maximum wind speed (survival)	without ice deposit	240 km/h
	with 20 mm radial ice deposit	130 km/h
Dimensions	W × L	approx. 4.4 m × 10.7 m (14 ft × 35 ft)
Weight		approx. 43 kg (95 lb)

<sup>1)</sup> Partial power reduction at > +35°C.

Ordering information	Type	Order No.
150 W HF dipole	R&S®HX002H1	6120.7000.02
<b>Recommended extras</b>		
Fiber-optic control cable	R&S®GK4102	
10 m		6120.5707.10
25 m		6120.5707.25
50 m		6120.5707.50
Tiltable mast, length: 5 m, for roof mounting	R&S®KM002A1	4035.7359.02
Lattice mast, length: 10 m	R&S®KM451B1	4028.3351.02
Lattice mast, length: 15 m	R&S®KM451B2	4028.3400.02
Isolating rope set, for R&S®KM451B1/B2	R&S®KM002Z3	4115.9540.02
Mast adapter, for R&S®HX002A1/HX002H1 on R&S®KM451B1/B2/B3	R&S®KM451Z5	4039.8308.03

Typical gain on a 5 m mast above perfectly conducting ground



Typical vertical radiation patterns on a 5 m mast above perfectly conducting ground

